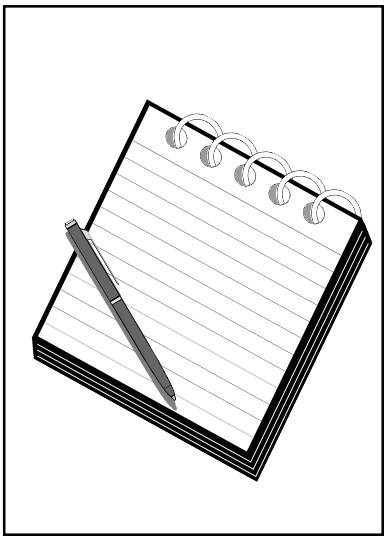
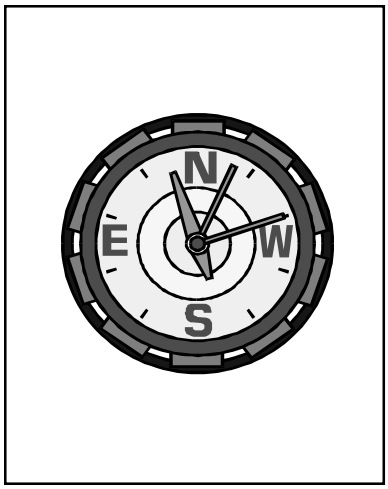
A Notemaker's Survival Kit:





Moving Deeper with Notemaking Strategies

Student Manual

To the Student

Lesson Nine:
Worst-Case Scenarios
-or-
Alone in School Without a Note

The Hook:

Suppose you're being pursued by a hive of Killer Bees, or trapped in a desert without water, or forced to wrestle with a crocodile or fend off a shark attack? Would you know what to do, or would you have to submit to 1000 stings, or become as dry as a stick, or face a very short life as some beasty's snack pack?

All these situations are called worst-case scenarios: dangerous and frightening events where people's very lives depend on odd and outlandish sorts of survival skills.

In this unit, you will study a variety of worst-case scenarios and use your readings to develop your notemaking abilities. Crocodile fights and making notes in school--it seems like an odd combination, but consider this:

Worst-Case Scenario #1

Imagine you are an adult living on your own, but incapable of writing notes to yourself. How many different kinds of trouble might you get into. . .

1. If you have trouble getting anywhere new because you can't write good directions?
2. Whenever you go shopping?
3. When your boss is giving you detailed instructions?
4.
5.
6.
7.
8.

Here's a list of ways troubles with notemaking can make trouble for you in school:

If you don't know how to make notes in school, then. . .

1. You can't conduct research effectively.
2. You can't keep track of the main ideas and important details in your textbook.
3. You can't remember in October what you read and learned in May.
4. You can't trace themes, patterns, and ideas that run through a month or a year.
5. You can't plan effectively for long-range projects.
6. You can't practice condensing information and deciphering what is and is not important in what you read.
7. You can't collect ideas from different sources and perspectives and see how they relate.
8. You can't keep track of the thoughts and questions that occur to you as you read.
9. You can't personalize your learning, keep a record of what it means to you, or return to ideas and questions you've had before and use them as sources for new books to read, new projects to pursue, or new pieces to write.
10. Eventually, maybe not today or tomorrow, but sometime--in middle or high school, on college or on your first or your third job--you won't be able to learn something as well as someone who knows how to make good notes.

OK, so if not knowing how to make notes is Worst Case Scenario #1, What's Worst Case Scenario #2? Imagine you're on vacation in Mexico. You and your family are taking a hike through a small area of forest outside they city where you're staying. Suddenly, you see a sign:

What do you do? Would this information help you?

Be Aware

- Tarantulas are basically just big spiders. Few will bite you unless you try to pick them up.
- Tarantulas are not carriers of any known disease that affects humans or other vertebrates. Tetanus, tularemia, and other diseases that may follow a tarantula bite are most likely the result of post-bite contamination due to unclean environmental conditions.
- Tarantulas can be found in North America, west of the Mississippi River; in South America; and in warm climates throughout the world. Their habitats vary, and include deep deserts, grassy plains, scrub forests, and rainforests. Most live in burrows, though a few species prefer trees and areas around the base or under the roof of human dwellings.
- Tarantulas are mostly nocturnal and are difficult to notice unless you are searching for them. Most people encounter adult males, which wander during daylight hours looking for female mates.
- Never try to pick up a tarantula. Tarantulas have tough bristles on the tops of their abdomens which can irritate the skin. These come loose easily and float freely through the air. They are shaped like small harpoons with barbed tips and may penetrate the skin and cause a rash or hives.

So, even if tarantulas seem a lot more dire than notemaking, remember that both can get you into a world of trouble--if you don't know what to do.

The Heart of the Lesson: What Every Good Notemaker Knows

Every good notemaker knows that a good set of notes relies on three key skills:

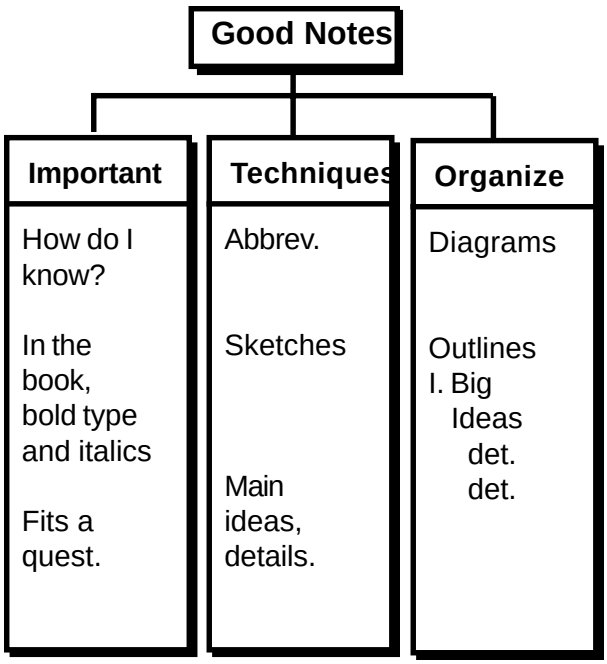
Deciding what's important;

Identifying a technique to record your notes;

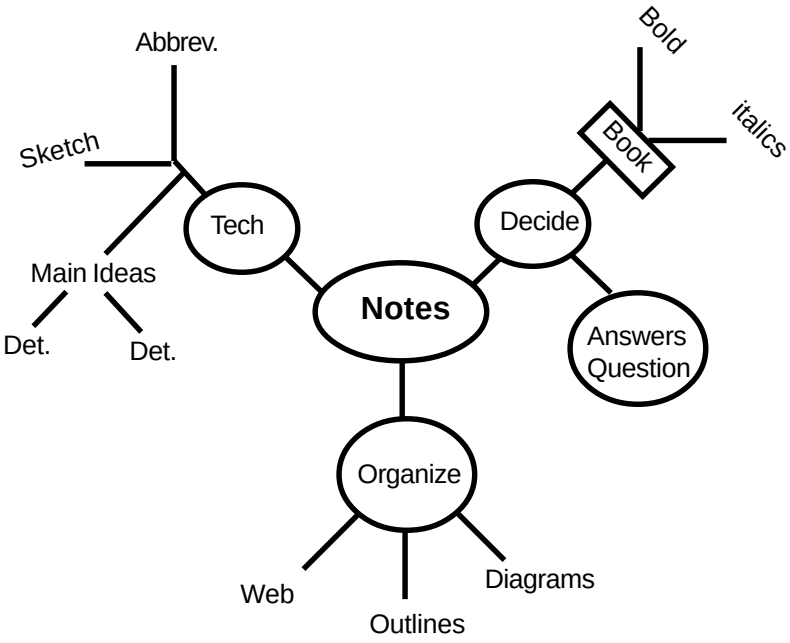
Getting good at organizing.

Barry and Barrie took a good set of notes on an article they read on notemaking:

Barry's Notes



Barrie's Notes



Can you figure out what they learned about notemaking from their notes?

Now, try your hand on this worst-case scenario: How to deal with a tarantula. Read the article on the left. Make your notes on the right. DIG IN!

How to Deal With A Tarantula

Tarantulas are usually not hostile and do not have fatal bites. However, their bites can cause dangerous allergic reactions in some individuals and can be extremely painful, so take care when one crawls on or near you.

1. Find something you can use to brush the tarantula off of you or away from you. A small stick, rolled newspaper or magazine, or glove works well. Most tarantulas are very skittish, and as soon as you poke them, they will leave in great haste. It is safer to remove the tarantula using an implement than using your bare hand.
2. If the tarantula is on you and cannot be brushed off, stand up carefully and bounce up and down gently. The tarantula should fall off or skitter away.

How to Treat A Bite

1. *Do not panic if you are bitten*. The vast majority of tarantulas give "dry" bites (which look like two pin pricks) first, and then a second bite to inject venom. Avoid *Pterinochilus* and *Heteroscodra*, two species of "baboon spiders" in Africa, and *Peocilothera*, or "ornamental tarantulas" in southern Asia, which deliver potent bites.

Cont'd on next page

Notes

How to Deal With A Tarantula (Cont'd)	Notes
2. Treat a dry bite like any other small puncture wound: use an antiseptic to clean it out, and bandage the site quickly. 3. *Observe the area around the bite carefully.* A few varieties of tarantula may inject venom that can cause swelling and redness in the area around the bite, as well as pain and tenderness lasting 2 to 6 hours. If these symptoms persist for longer than 12 hours, or if other, more serious symptoms develop, seek medical attention. Unless absolutely necessary, do not drive a vehicle. 4. *Treat excessive swelling with antihistamines.* The allergic reaction can be eased with antihistamines, although they are usually slow acting. If symptoms such as extreme flushing in the face, blurred vision, dizziness, profuse swelling around the face or eyes, or restricted breathing occur, epinephrine may be necessary. 5. *Watch closely for complications*. While the bite itself is probably not life-threatening, it can become infected, and this is the greatest danger if you are bitten. Seek immediate medical attention if you see signs of tetanus (muscle stiffness, spasm, fever, convulsions, difficulty swallowing, irregular heartbeat, trouble breathing), tularemia (fever, nausea, swollen lymph nodes, sore throat, vomiting, diarrhea), or septicemia (spiking fever and chills, rapid breathing, shock, disorientation, inability to urinate, swollen limbs, blue lips and fingernails).	

When you are finished, compare your notes with your neighbor's.

Reflection

As you look back on your notemaking experience, try to think of

3 Details you want to remember
2 Big Ideas that will help you be a better notemaker
1 Question

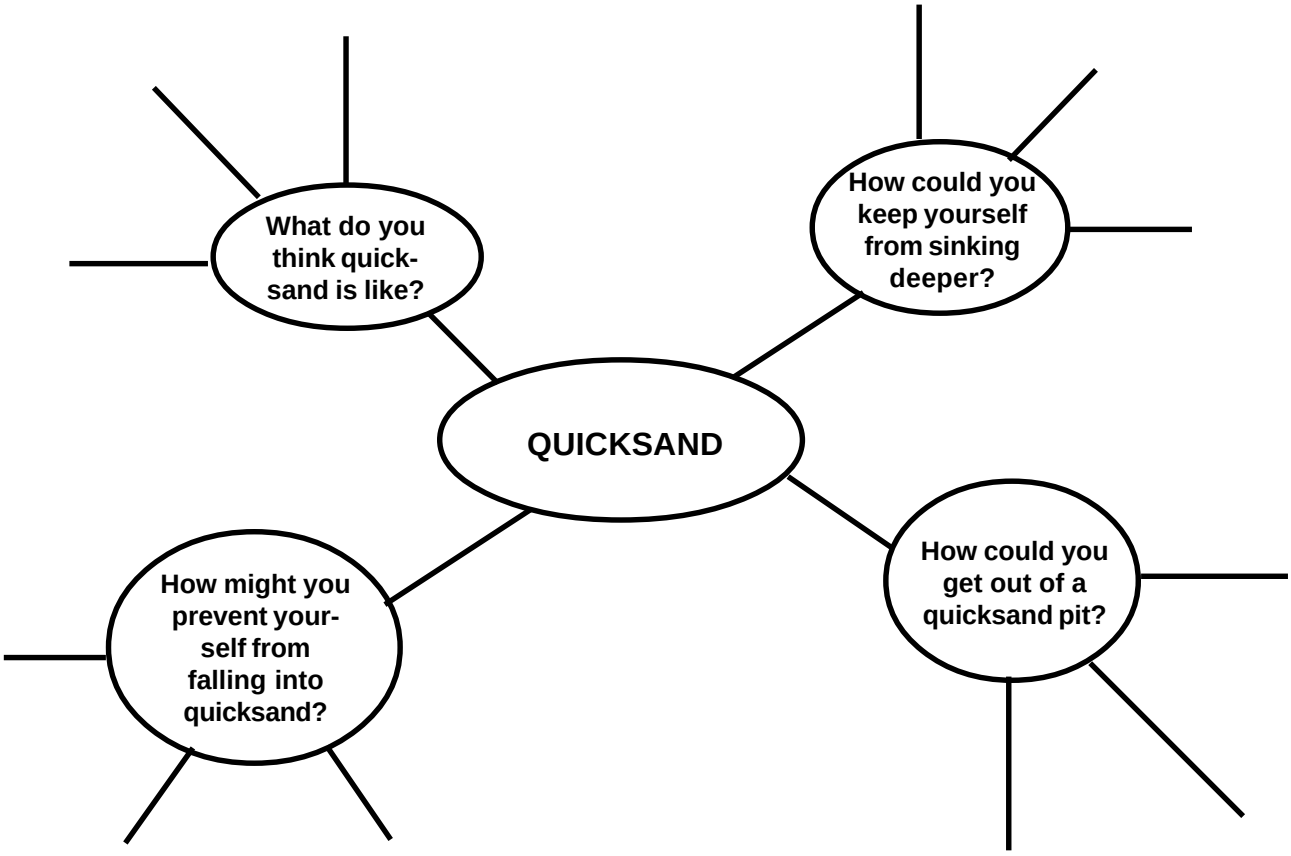
To the Student

Lesson Ten:
How Is Notemaking Like Climbing Out of Quicksand?

The Hook:

Have you ever dreamt you were stuck in quicksand? How would that feel? How would you keep yourself from sinking? How would you get yourself out? If you knew you were walking through an area where quicksand was common, how would you keep yourself from falling in the first place? It may seem strange, but we would like you to think a little about these questions and record your answers on the web below. Jot down as many ideas as you can on the lines on the web:

Another Worst-Case Scenario:
Escaping from Quicksand



The Heart of the Lesson:
How is Reading like Climbing Out of a Quicksand Pit?

Did you know that some kinds of notemaking can help you fight off confusion and boredom while you read? One of the best techniques is Double A Double R.

The first **A** stands for **Ask** yourself what you already know about a topic before you begin a new reading.

The second **A** stands for **Answer** your own question. One way to do this is to make a little question web like the one you used to think about quicksand.

The first **R** stands for **Read**. After you have jotted down your guesses about what you know, read the text and compare what you are reading with the information you placed in your web.

The second **R** stands for **Revise**. As you read, revise your web by adding any new and important information and rewriting any notes that are mistaken. Here is an article on how to escape from a quicksand pit. You have already tried out the two A's. Now, practice Reading and Revising your web.

How to Escape From Quicksand

- When walking in quicksand country, carry a stout pole--it will help you get out should you need to.
- As soon as you start to sink, lay the pole on the surface of the quicksand.
- Flop onto your back on top of the pole. After a minute or two, equilibrium in the quicksand will be achieved, and you will no longer sink.
- Work the pole to a new position: under your hips and at right angles to your spine. The pole will keep your hips from sinking, as you (slowly) pull out first one leg and then the other.
- Take the shortest route to firmer ground, moving slowly.

How to Avoid Sinking

Quicksand is just ordinary sand mixed with upwelling water, which makes it behave like a liquid. However, quicksand--unlike water--does not easily let go. If you try to pull a limb out of quicksand, you have to work against the vacuum left behind. Here are a few tips:

- The viscosity of quicksand increases with shearing--move slowly so the viscosity is as low as possible.
- Floating on quicksand is relatively easy and is the best way to avoid its clutches. You are more buoyant in quicksand than you are in water. Humans are less dense than freshwater, and saltwater is slightly more dense. Floating is easier in saltwater than freshwater and much easier in quicksand. Spread your arms and legs far apart and try to float on your back.

Reflection

So now that you have practiced the Double A Double R notemaking strategy, let's try to put quicksand together with notemaking:

When is reading like falling into quicksand?
How is Double A Double R notemaking like climbing out of quicksand?

To the Student

Lesson Eleven:
Climbing High With Power Notes

The Hook:

A Puzzle for You:

One day we came into a classroom after the students had gone. We found three sets of notes that three students had left behind. Though each student had been studying a different topic, all three had been making their notes in the same peculiar way. Examine their notes and see if you can figure out the way these students thought about notemaking:

Pedro's Notes

Topic: Native American clothes

1. Everyday clothes
    2. Dressed to suit climate
        3. Rain forest
        3. Desert
            4. wore very little to keep cool
    2. Clothes fit loosely for movement
        3. Men wore
            4. loincloth
            4. shirt
            4. tunic
            4. leggings
        3. Women wore
            4. skirts
            4. dresses

1. How they were made
    2. From things around them
        3. Animals
            4. skin for cloth
            4. sinews for thread
            4. bones for needles
        3. Plants
            4. wove cloth from plant fibers

Petra's Notes

Topic: Food

1. Mexican food
1. Fast food
1. Italian food
    2. pasta
        3. lasagna
        3. spaghetti
        3. ravioli
            4. meat ravioli
            4. cheese ravioli
            4. spinach ravioli

Peter's Notes

Topic: Outer Space

Power1: Solar systems
Power 2: Planets
Power 3: Earth
Mars
Venus
Power 4: Revolve around stars
Usually have moons
Don't give off light
Power 2: Stars
Power 3: Sun
North Star
Power 4: Give off light
Give off heat
Very large

The Heart of the Lesson:
Could You Survive a Trip to the Top of Mount Everest?

The Power Notes that Pedro, Peter, and Petra made for themselves are as simple as 1, 2, 3, and 4.

Number One notes are the big ideas, the subtopics in what you are reading.
Number Two notes are more specific, smaller ideas about your Number One notes.
Number Three notes are smaller details about your Number Two notes.
Number Four notes are...well, you see how this is going. Number Four Notes are the smallest, most specific notes of all.

Here's how to use Power Notes:

First, write the topic at the top of your page.
Next, scan your article and identify your Number One notes. These will be the subtopics in your reading. Leave plenty of space between your ones (a 1/4 to 1/3 of a page) because you won't know until you read how many Twos, Threes, or Fours you will need.
Then, read the information under the first subtopic. Pick out your Number Two notes first, write any Number Threes under the right Twos and any Number Fours under the right Threes.
Finally, keep on reading each subtopic and recording your Twos, Threes, and Fours as you go.

Try out your Power Note strategy on the article below. We've provided some clues to get you started:

"How to Survive A Night On Mount Everest"

If you find yourself near the top of Mount Everest, you are about to become one of the most famous adventurers on earth--if you survive. Life above 20,000 feet is full of dangers and you will need to know how to survive them all.

Air. I need air.

At 29,000 feet, there is only one third as much oxygen as at sea level. Fly from the shore to the top of Mount Everest and you will die of lack of oxygen in less than five minutes. How to survive? Prepare. Bring your oxygen with you and make several practice trips from base camp to higher and higher altitudes to let your lungs adjust.

Power Notes
Topic: *Surviving An Avalanche*
1. Stay on top
  2. Make swimming motions
1. Partially buried
  2. Find up
  3. Poke with pole 'till you find air
  2. Dig up
1. Completely buried
  2. Find up
  3. Spit
    4. Spit
    4. Spit rolls down hill
    4. Dig in the other direction

Your Power Notes
Topic: *Surviving Mount Everest*

1. Lack of oxygen

1. Wind dangers

There She Blows: The Wind on Mount Everest

Mount Everest is so high that the jet stream blows across its top. High winds make climbing and surviving difficult. Blowing snow can render climbers temporarily blind and the winds can blow you right off the mountain. How to survive: Bring goggles and at the first sign of a high wind, tie yourself down to the rock face.

1. The cold

Baby It's Cold Up Here

At the top of Everest in the summer, the temperature climbs to a balmy -20 degrees Fahrenheit. Nighttime temperatures in the winter commonly sink to -100 degrees F. What's worse, at that height there is not enough oxygen to keep a fire going. Our advice: bring well-insulated clothing--and don't stay long.

1. Death Zone

You've Made it to the Top--or rather, the Death Zone

If you are standing on the top of Everest, you are 3,000 feet into the death zone. Within the death zone (26,000 feet and above), human beings do not live long. They simply grow weaker and weaker and eventually die. So, now that you have made it to the top, take a picture and start back down as soon as you can. But go slowly and carefully; it's more dangerous climbing down than climbing up.

Reflection

Compare and contrast Double A Double R with Power Notes:

Similarities

Differences (Power Notes)

Differences (Double A Double R)

Which one is easier?

Which one is more interesting?

When would you use Power Notes?

When would you use Double A Double R?

To the Student

Lesson Twelve:
Fighting Off the Crocodiles With Cornell Notes

The Hook:

One day we decided to count up all the students we have taught: Two teacher; a hundred students a year; twenty years for each teacher. That makes. . .4,000 students. Thinking back, we can only remember three students who enjoyed reading textbooks.

Let's be honest. Textbooks are a pain in the neck. Almost nobody enjoys reading them and they are among the hardest kind of books to read.

What makes textbooks so hard to read? (Don't just say they are boring. Open one up and read a few passages.) Now, why are they so hard?

The Heart of the Lesson:
Cornell Notes

Twenty-five years ago, some professors at Cornell noticed how many of their freshmen and sophomore students struggled--and sometimes failed--because of problems surrounding textbook reading. So, they sat down together, did some reading, and devised a method that, for twenty-five years, has made textbook reading an easier--and more successful--event in their students' lives. Here are the steps and an example:

Step One:
Divide your paper into four columns and write your topic at the top of the page.

How to Escape From Killer Bees			
Questions	Main Ideas	Details	Monitor

Step Two:
Preview the pages you need to read and convert the subtopics into questions. Write these questions in the right-hand column. For instance:

If the textbook has subtopics like these:

		Topic: How to Avoid Questions
The Origin of Killer Bees	*Change them into questions* →	**Where do Killer Bees come from?**
Avoiding Killer Bees	→	**How can you avoid Killer Bees?**
If you are stung	→	**What should you do if you are stung?**

Leave plenty of space between your questions (1/4th to 1/3rd of a page).

Step Three:
Now read your assignment. As you read, place the most important information in the Main Ideas column and details that might be important later in the Details column.

How to Escape From Killer Bees

Questions	Main Ideas	Details	Monitor
Where do Killer Bees come from?	From the United States--been here for centuries.	Called African. They're not.	✓
	Most dangerous when raising their young.	Regular bees chase you 50 feet. Killer Bees 150 feet.	✓

Use the Monitor column to show how well you understand the material described in your notes:

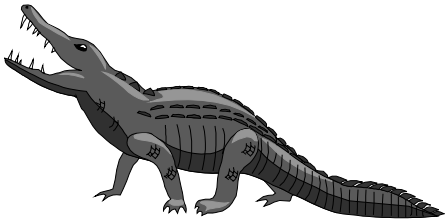
Monitor

✓ I know this

? Question about this

* Need to review later

Try out using the Cornell Notes on the article below. Work together with a partner to lay out your questions. Then, read and collect your main ideas and details on your own. When you are finished, compare your notes with your partner's. How does your work differ? What causes the differences?



Shed No More Tears Over the Crocodile: It Has Snapped Back

Advantages and Disadvantages of the Crocodile Lifestyle

Zambezi River, Zimbabwe--This is a story about power, sex, predation, and violence in Africa. It's about crocodiles.

Under cover of Zimbabwe's seven-year guerrilla war, armed poachers did a land-office business in crocodile skins here. With the poachers slaughtering the adults and with natural predators of the unarmed variety making off with the young, the Zambezi River was being drained of its crocodiles.

Crocodylus niloticus had become an endangered species.

But with peace restored to Zimbabwe, game wardens can safely begin their poacher patrols again, and Zimbabwe is enjoying something of a crocodile comeback. In light of that news, here are some observations about crocodiles.

First, the power. A crocodile can grow to a length of 20 feet, weigh half a ton, and tackle a 900-pound buffalo that wanders past at lunchtime. A crocodile can stay under water for 2-1/2 hours without a breath of air by slowing his heartbeat and going into semi-hibernation. He can outrun a man in a 100-yard dash, although there is no record here of any such foot race.

A crocodile has 66 teeth that he tends to lose like mittens in the hurly-burly of hunt, so he grows up to 45 sets in a lifetime. For all those teeth, a crocodile can't chew. When a 900-pound buffalo strolls too near the river bank, a crocodile snaps onto its leg and drags it under water, holding it there until it joins the choir invisible. The crocodile wedges the buffalo between some underwater roots and rips into its hide, swallowing whole a chop here, a rib roast there.

Crocodiles Eat, Mate, and Raise Baby Crocodiles

A crocodile usually needs two or three good feeds like this a month, although one crocodile under study by a Victoria Falls naturalist went for a year without eating. That crocodile then starved to death, however, so it would appear a crocodile needs to feed at least once every 364 days.

Now for sex. A crocodile reaches maturity when he is 2-1/2 feet long, which can take anywhere from 10 to 20 years, depending on how well he has been eating. When a male crocodile is at last mature, he claims a territory--the size depends on how well stocked it is with food--and also claims all the females in it. A mature female who doesn't like the housekeeping arrangement can move on.

Crocodiles mate in the water, where the buoyancy is all that keeps them from crushing each other to death. They are sweetly gentle in the passion. Two months after the assignation, the female lays 50 leathery white eggs in a hole on land, while a dozen or so crocodiles from the neighborhood gather round. Perhaps they are there to protect the mother; then again, perhaps they're just curious. At any rate, the mothering female fills in the hole and pats down the soil, and everyone slinks off for a swim.

Ninety-six days later, when the embryos can tell from the trembling of the earth that mother is overhead, one begins to squeak. The others take up the cry--which is as close to crocodile tears as they ever come--and the female rushes to dig out the hole. As the baby crocodiles chew through their eggshells with their egg teeth (set No. 1), the female pops them into a satchel in her mouth and totes them down to the river. They quickly get down to the vital business of snapping for bugs.

Crocodiles and Humans: Hunters and Their Prey

Here's where the predation comes in. An adult crocodile has only one predator: a man with a rifle (a Soviet-designed AK-47 is preferred in these parts). But all the world seems to be after the little crocodile: bigger crocodiles, mongooses, snakes, jungle cats, big birds and the elements themselves. Most of the crocodile nests along the Zambezi are destroyed by predators or floods, and only 2 percent of the crocodiles that hatch ever rumble into adulthood. For those that make it, however, there are many rewards, including a 100-year lifespan and sexual potency right up to the end.

Now, finally, the violence. Given a choice between a man and a buffalo, a crocodile almost always will opt for a fish. But occasionally a man will happen along the river bank and look for all the world like groceries on the shelf. Zimbabwe game wardens estimate that along the Zambezi, 40 or 50 people are demoted to dinner in this way every year.

But Zimbabwe doesn't know how many people it has, so it's hard to believe it knows how many are missing. For that matter, it doesn't know how many crocodiles it has either, so there isn't any way to figure how many are missing because of poachers.

There are two differences between a crocodile and an alligator, aside from the fact that crocodiles live in Africa and alligators live in the U.S. and China. The first difference is temperament: There are Everglades Indians who make a living wrestling alligators, but no one wrestles a crocodile. The second difference is the jaw: An alligator's teeth don't show when its mouth is closed; a crocodile's do. That gives the crocodile an unctuous, toothy simper that Alice in Wonderland found herself commenting upon:

How cheerful he seems to grin,
How neatly spreads his claws.
And welcomes little fishes in
With gently smiling jaws.

Reflection

Think back on your experience using the Cornell Notemaking technique:

What problems did you have the first time out?	How often do you think you will need to use this technique before it becomes easy?

To the Student

Lesson Thirteen:
Your Own Worst-Case Scenario
-or-
Noting Your Way to Good Writing

The Hook:

Most people think of notes as a tool to use in reading or when listening to a lecture. But notes can play an important role in writing as well. Consider this writing assignment:

Your Own Worst-Case Scenario

You may never have fought for breath on top of Mount Everest or fled from a swarm of Killer Bees, but you have survived some perilous adventures. For instance:

- Have you ever been bored out of your mind?
- Have you ever been hounded by a bully?
- Forced to eat the worst meal ever?
- Felt alone without a friend in the world?

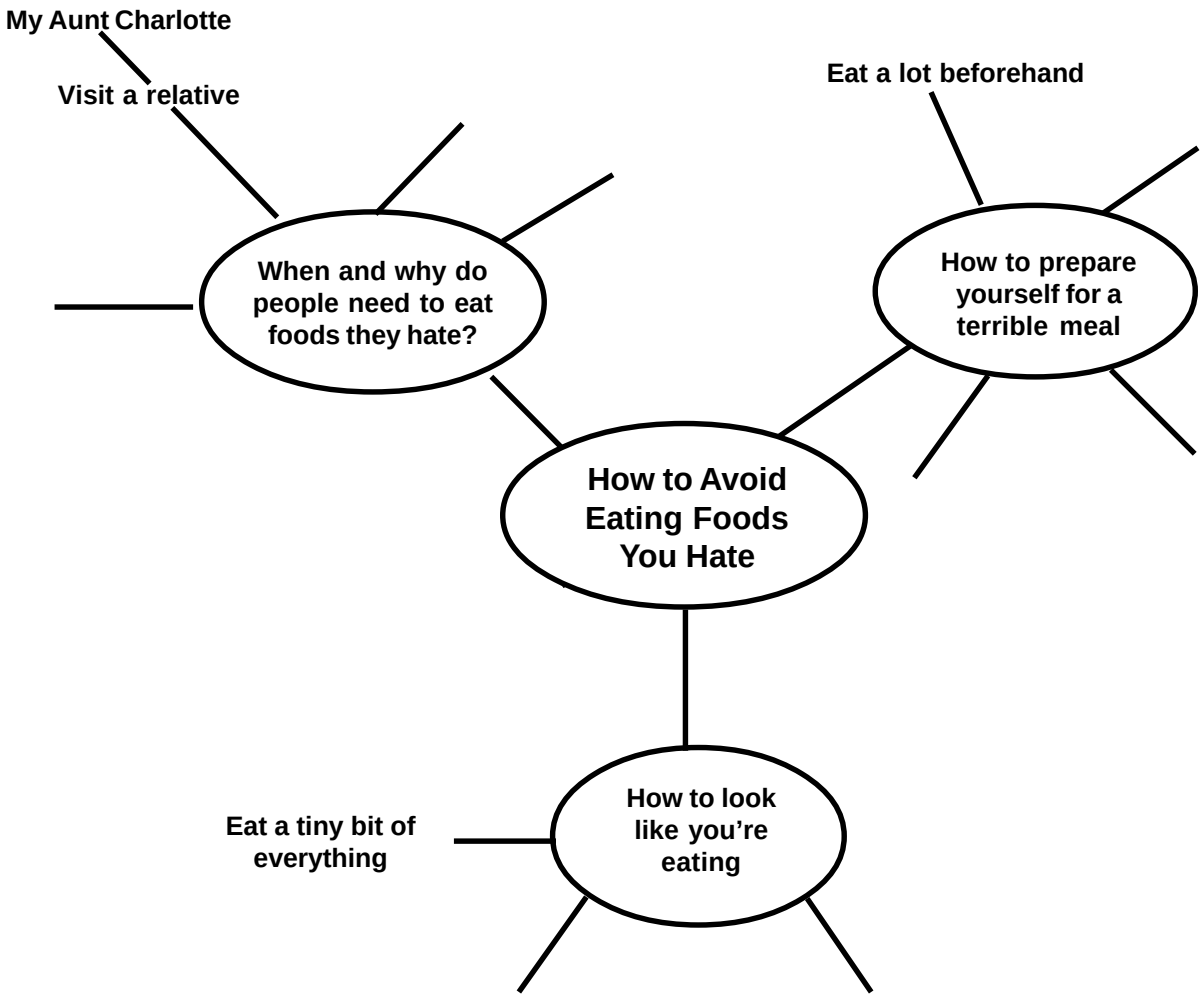
Think of some dangers in your life. Write a worst-case scenario in which you describe a "danger" you have lived through and provide advice to others about how to survive such a danger.

Imagine you were given such an assignment. What kind of notes would you make to ensure you produced the best Worst-Case Scenario you could?

The Heart of the Lesson
Noting Your Way to Good Writing

In writing, we use notes in order to plan our writing. If you have half an hour to write something for school, figure you will need to use 1/4 to 1/3 of your time in planning. First, pick a topic. Then, use the question webs from Double A Double R to collect ideas and details you can use. Ask yourself some questions about your topic, then "read" your memory to find as many ideas and details as you can in answer to your questions.

Say your topic was “How to Avoid Eating Foods You Hate.” You might make a web like this:



Try to fill out some ideas on this web.

Now, you might want to use Power Notes to put your ideas in order. Read the Power Notes on the following page and fill in the blanks:

Topic: How to Avoid Eating Foods You Hate

1. Where do bad meals come from?
    2. Relatives
        3. Holidays
        3. When they come to visit
        3. Your sister is learning to cook
    2. Restaurants your parents like
        3. Too many sauces
        3. Bitter vegetables

1. Why do we have to eat them?
    2.
        3.
        3.
    2.
        3.
            4.

1. How to prepare yourself for a terrible meal.
    2.
        3.
        3.
    2.
        3.
        3.

1. How to look like you're eating.
    2.
        3.
    2.
        3.

The great thing about the webs in Double A Double R is that they help us get lots of ideas. The great thing about Power Notes is that they help us put our ideas and details in order. So, we're good to go. *Remember, if you spend 1/4 to 1/3 of your time planning your writing through notemaking, your writing will almost always be stronger and easier to do.*

Reflection

Why don't more people use notes to plan their writing?	What would you tell these people to change their ways?